

the present time, cowlings for Cheetah installations are going through. All these have the neat double-grip type fastener. The spinings for these cowlings orders, of which more will soon be commenced, are supplied by the Manchester Tinning Co., of Brookside Works, Manchester, 9.

Apart from numerous small parts, auxiliary tanks and instrument panels are being produced for famous medium bombers, and port and starboard sectioned leading edges are made up back-to-back on a special jig. A large order for bomb cell doors is in hand.

One or two products not quite so directly connected with the aircraft industry are also manufactured by Northern Aircraft, notably non-seizable cocks for such liquids as beer, brine and syrup; and refrigerators for special duties.

Rolls-Royce Board Appointment

MR. HARALD PEAKE, M.A., has been appointed to fill the vacancy created on the Rolls-Royce Board by the death of Major-General Sir Wm. G. Hertram Boyce.

Mr. Harald Peake is joint managing director of Airedale Collieries, Ltd., and other colliery companies.

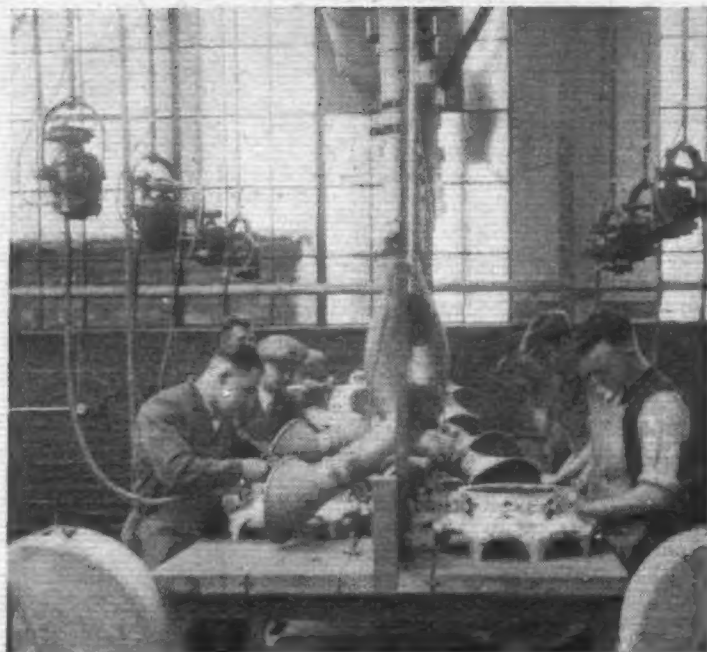
He was educated at Eton and Trinity College, Cambridge, served in the Coldstream Guards in the European War, and has a very practical interest in aviation, for he is a Squadron Leader in the Auxiliary Air Force.

Jicwood Limited

IN *Flight* of December 9, 1937, it was announced that a new company was about to be formed under the title of Jicwood, Ltd. Further particulars of the new concern, which is a subsidiary of The Airscrew Co., Ltd., of Weybridge, and Halila, Ltd., of Bush House, London, are now available. The nominal capital of £36,000 was taken up between the Airscrew Co. and Halila, and the board will consist of Mr. J. D. Titler (chairman), Dr. H. C. Watts, Mr. R. Bradfield and Mr. F. T. Swann. Mr. Swann, who is a director of Halila, Ltd., recently joined the board of The Airscrew Co., Ltd.

The new company has been formed to produce commercial and aircraft plywoods and special waterproof and high-strength plywood for stabilised wing coverings. The company will also develop wood improved by compression and impregnation with thermo-setting materials, as well as the Halila double-curvature process.

Jicwood, Ltd., will take over the manufacture of the Samsonow compressed wood used in the manufacture of air-screw blades, with which the Airscrew Company has had



THE NEAT WAY: An overhead installation of "Morrisflex" grinders being used for crankcase finishing in a shadow factory. These flexible-shaft tools—which, of course, are adaptable to many other duties, such as buffing and drilling, are made by B. O. Morris, A.M.I.Mech.E., Tythe Barn Lane, Shirley, Birmingham.

considerable success, such blades having totalled some 12,000 flying hours in the R.A.F.

In addition to the other products mentioned it is the intention that Jicwood, Ltd., shall produce high-strength spars of compressed wood, either of constant density or of variable density, using both the Samsonow interleaving patent and the Jicwood cement patents. The general management of Jicwood, Ltd., is under the direction of Mr. J. D. Titler and Mr. F. T. Swann. Dr. Watts will act as technical adviser and Capt. Hubert Broad is looking after the liaison with the aircraft industry. The secretary of Jicwood, Ltd., is Mr. E. R. Mainwaring, and the offices and works of the company are at Weybridge, Surrey.

MODELS

(Continued from page 24.)

sprung by a central 14-gauge wire with shock-damper consisting of rubber tube over the lower end of the wire. A bamboo strut, carrying a tiny wheel, plugs into a paper tube fixed to a reinforced rib in each wing. The overall length of the model is 24in.

At the roots the incidence is neutral, while the tips have a negative angle of $4\frac{1}{2}$ deg. There are $1\frac{1}{2}$ deg. of down-thrust, the thrust-line being on the centre of resistance and slightly below the c.g. The machine is rock-steady in flight and has a flat glide, while, despite the low power, it has an excellent climb and is fast. The longest duration to date, made under wintry conditions, has been 49 sec. Left and right turns and straight flights are easily obtained, up or down wind, by means of the controllers.

The Shanly Tail-less Pusher

MR. G. SHANLY'S tail-less model is of the pusher type, and is a high-wing monoplane with a moderate amount of taper. The wing is in two parts, joined at the centre by two birch dowels in one section, plugging into cartridge-paper tubes in the other, the completed wing being coupled to the top of the fuselage with rubber bands. The span of each wing section is 18in., the chord tapering from 5in. to 3 $\frac{1}{2}$ in. On the leading edge there is a uniform sweep-back of 25 deg., and on the trailing edge 20 deg. The section is Clark Y, with $\frac{1}{2}$ in. washout. Controllers 5 $\frac{1}{2}$ in. long and 2 $\frac{1}{2}$ in. wide are hinged to a reinforced section of the trailing edge by means of small pieces of aluminium sheet and are set at a considerable negative angle. Unlike the Goodsir model, the wing has a slight dihedral angle.

Four longerons of $\frac{3}{8}$ in. x $\frac{3}{8}$ in. balsa, with cross-struts and sundry diagonal members, form the rectangular-section fuselage, which is 20 $\frac{1}{2}$ in. long, 2in. wide, and 2 $\frac{1}{2}$ in. deep. The first and last bays are reinforced with $\frac{1}{4}$ in. sheet. The undercarriage has a wheelbase of 5 $\frac{1}{2}$ in., and comprises a pair of 1 $\frac{1}{2}$ in. celluloid wheels carried by two 20-gauge wire struts,

with 24-gauge rear legs incorporating the popular "safety-pin" loops. It is completely detachable from the fuselage, as is the 20-gauge wire holding the rear wheel.

An airscrew 12in. in diameter and 12in. in pitch, is powered by a 6-strand skein of $\frac{1}{16}$ in. flat rubber. There are about 3 degrees of down-thrust. A free-wheel device is employed, also a rubber-tensioner, which can be adjusted on the field to suit the pull of different motors. In place of wing-tip rudders there is a single removable fin, 4in. wide and 4 $\frac{1}{2}$ in. high, mounted on the fuselage just ahead of the airscrew. The fuselage is covered with bamboo paper, and the wings and fin with Japanese tissue.

Stability, climb, glide and duration are all very satisfactory.

S.M.A.E. Contests

THE 1938 outdoor season of the Society of Model Aeronautical Engineers opens on April 3. Early notice of the April and May fixtures will doubtless be welcomed. Those marked with an asterisk (*) are decentralised contests, held simultaneously on the grounds of affiliated clubs.

April 3, Gamage Cup, any rubber-driven type, average of three rise-off-ground flights*; April 17, Pilcher Cup, Wakefield types, average of three r.o.g. flights*; May 8, Model Engineer Cup No. 1, gliders, rules as 1937*; May 22, Seaplane contest, use of launching-tank optional*; May 29, Flight Cup, speed, rules as 1937, ground to be announced.

The new catalogue of Kanga Aero Models, 1, Colonnade Passage, New Street, Birmingham, covers a comprehensive range of models, engines, materials and accessories. Kits are obtainable for several successful Bowden petrol-planes, including the Kub (1937 Shelley Cup winner), Kite (scaled-up Kub), and Blue Dragon (one-time British record-holder). Engines range from the 2.3 c.c. Spitfire to the 18 c.c. Comet, and include the new Challenger and Ohlsson. Engine mountings and automatic flight-timers are also listed.